

The present invention relates to the use of a class of genes called oil body protein genes that have unique features. The discovery of these features allowed the invention of methods for the production of recombinant proteins wherein a protein of interest can be easily separated from other host cell components. The invention is further exemplified by methods for exploitation of the unique characteristics of the oil body proteins and oil body genes for expression of polypeptides of interest in many organisms, particularly plant seeds. Said polypeptides include thioredoxin and/or thioredoxin reductase. The invention can also be modified to recover recombinant polypeptides fused to oil body proteins from non-plant host cells.